Advancement Handbook for Operations Specialist

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PREFACE

The purpose of the Advancement Handbook is to help you focus your preparation for Navywide advancement-in-rating examinations. The bibliographies (BIBs) together with this handbook form a comprehensive examination study package. Since this handbook provides skill and knowledge components for each paygrade of the OS rating, it helps you concentrate your study on those areas that may be tested. This feature will help you get the most out of your study time.

Each page in Parts 1 through 4 of this Advancement Handbook presents general skill areas, specific skill areas, the knowledge factors associated with each skill area, the pertinent references that address each skill, and the subject areas that may be covered on the examination. The skill statements describe the skills you are expected to perform for each paygrade. The skill statements are <u>cumulative</u>; that is, you are responsible for the skills for the paygrade you are competing for, your present paygrade, and all paygrades below.

Although this handbook is very comprehensive, it cannot cover all the tasks performed in the rating. As a result, the advancement examinations may contain questions more detailed than described in the *"Exam Expectations"* section of the skill areas.

Remember that advancement competition is keen, so your keys to advancement include not only comprehensive advancement examination study but also sustained superior performance.

Prepared by

Naval Education and Training Professional
Development and Technology Center

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Part 1

Advancement Handbook for OS3

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General OS *Skill Area*	**Tactical Support**
A *skill* you are expected to perform from the General Skill Area above:	**Maintain vertical and horizontal plots (DRT/DDRT, VP, LSDs, and ASTABs)**
Knowledge you should have to perform this skill:	How to: • Plot and maintain DRT/DDRT and vertical plots • Construct formation diagrams and dispositions • Mark and interpret contact information • Display contact information
References you should study to gain the knowledge you need to perform this skill:	• *Allied Maritime Tactical Instructions and Procedures,* ATP 1, Vol. 1; Ch. 2, 3, 8, 9, 10 • *Allied Maritime Tactical Signal and Maneuvering Book,* ATP 1, Vol. 2; Ch. 1. • *Antiair Warfare,* NWP 3-01.01; Ch. 3, 4 • *Maneuvering Board Manual,* , NV PUB 217, 4th ed. U.S. Department of Defense • *Surface Ship Passive Localization and Target Motion Analysis,* NWP 3-21.51.3; Ch. 3, 4, 6, App B
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on plotting procedures and symbology for the DRT/DDRT and vertical plots, construction of formation diagrams and force dispositions, and contact data entry for display on ASTABs and LSDs.

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General OS *Skill Area*	**Tactical Support**
A *skill* you are expected to perform from the General Skill Area above:	**Maintain summary and geographic plots (environmental data, SURPIC data, waterspace management, minefields)**
Knowledge you should have to perform this skill:	How to: • Plot and maintain summary and geographic plots. • Display contact information. • Plot and correlate Electronic Warfare information. • Plot various environmental conditions • Determine Line of Sound (LOS) for target /contact motion analysis (TMA/CMA) • Plot mine fields. • Plot and update Q routes and swept channels.
References you should study to gain the knowledge you need to perform this skill:	• *Allied Maritime Tactical Instructions and Procedures,* ATP 1, Vol. 1; Ch. 5, 8, 9, 10 • *Surface Ship Passive Localization and Target Motion Analysis,* NWP 3-21.51.3; Ch. 4, 6, App A • *Mine Countermeasures and Planning Procedures (General Instructions),* NWP 3-15.41 (Rev. B); Ch. 6 • *Mine Countermeasures Operations,* NWP 3-15.2, Ch. 9 • *Surface Mine Countermeasures Operations,* NWP 3-15.21 (Rev. B), Ch .1

Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on maintaining summary and geographic plots, plotting EW and environmental information, construction of line of sound diagrams and plotting of mine warfare information.

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General OS *Skill Area*	**Tactical Support**
A *skill* you are expected to perform from the General Skill Area above:	**Maintain CIC logs**
Knowledge you should have to perform this skill:	How to: • Maintain CIC surface contact log • Maintain radio logs • Maintain watch logs • Maintain navigation and deck logs • Disseminate information written in CIC logs
References you should study to gain the knowledge you need to perform this skill:	• *Preparing, Maintaining, and Submitting the Ship's Deck Log*, OPNAVINST 3100.7 • *Communication Instructions Radiotelephone Procedures,* Allied Communication Publication, ACP 125; Ch. 1 • *Ship Operational Data Forms,* OPNAV 3100-3360 series, (OPNAV Form 3100/2, 3100/3, 3100/5)
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on log keeping procedures and the information written in the different CIC logs, including abbreviations and prowords.

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General OS *Skill Area*	**Tactical Support**
A *skill* you are expected to perform from the General Skill Area above:	**Solve basic maneuvering board problems.**
Knowledge you should have to perform this skill:	How to: • Compute surface contact course and speed • Compute avoiding courses • Compute closest point of approach (CPA) • Determine true/relative/apparent wind • Determine course, speed, and time for stationing
References you should study to gain the knowledge you need to perform this skill:	• *Maneuvering Board Manual,* U.S. Department of Defense, NV PUB 217, 4th ed.
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on surface contact course, speed, and CPA, avoiding courses, wind problems, and stationing problems.

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General OS *Skill Area*	**Tactical Support**
A *skill* you are expected to perform from the General Skill Area above:	**Identify, correlate, and update contacts gained from radar, ESM, acoustics, IFF, and lookouts**
Knowledge you should have to perform this skill:	How to: • Compare lookout and sensor data • Mark and interpret contact data • Assign symbology • Display contact information
References you should study to gain the knowledge you need to perform this skill:	• *Antiair Warfare,* NWP 3-01.01; Ch. 4 • *Antiship Cruise Missile Employment Manual,* NWP 3-20.71; App D • *Surface Ship Passive Localization and Target Motion Analysis,* NWP 3-21.51.3; Ch. 4, 6
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the procedures to identify, track and correlate contact information gained from radar, acoustic, ESM and lookouts.

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General OS *Skill Area*	**Tactical Support**
A *skill* you are expected to perform from the General Skill Area above:	**Maintain special plots**
Knowledge you should have to perform this skill:	How to: • Plot search and rescue (SAR) data • Plot downed pilot data • Plot nuclear detonation (NUDET) data (emergency fallout, point ROMEO, etc.) • Plot man overboard data
References you should study to gain the knowledge you need to perform this skill:	• *Allied Maritime Tactical Instructions and Procedures,* ATP 1, Vol. 1; Ch. 2, 12 • *National Search and Rescue Manual Vol. 1: National Search and Rescue System,* Joint Chiefs of Staff, JP 3-50; Ch 5, 6, 7, App D, E • *Search and Rescue,* ATP-10; Ch. 6
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on Search and Rescue, man overboard, downed pilot, and NUDET plotting.

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General OS *Skill Area*	**Air Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Track, report, update air contacts**
Knowledge you should have to perform this skill:	How to: • Report air contacts • Verify friendly and hostile air tracks • Verify air contact altitudes • Track and update air contacts • Determine positive Identification Friend or Foe (IFF) returns • Resolve identification conflicts
References you should study to gain the knowledge you need to perform this skill:	• *Allied Maritime Tactical Instructions and Procedures,* ATP 1, Vol. 1; Ch. 7 • *Antiair Warfare*, NWP 3-01.01; Ch. 3, 4, App E
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the procedures involved in tracking air contacts, proper reporting format, identification of air tracks using AIMS MK XII IFF system and procedures to resolve identification conflicts.

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General OS *Skill Area*	**Air Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Maintain air warfare status boards**
Knowledge you should have to perform this skill:	• How to update and maintain air status boards
References you should study to gain the knowledge you need to perform this skill:	• *Antiair Warfare,* NWP 3-01.01; Ch. 4, App D
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on plotting AW data on vertical plots, and updating/maintaining air events, air summary plot, and other various AW status boards.

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General OS *Skill Area*	**Undersea Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Maintain USW plots**
Knowledge you should have to perform this skill:	How to: • Plot sonar contacts on DRT/DDRT • Plot sonobuoy data on DRT/DDRT • Compute ETA to TDA • Maintain time bearing/time frequency plots • Plot line of sound (LOS) data for target motion analysis (TMA) • Plot TDA/TDZ data • Plot cone of courses • Plot datum, datum error and furthest-on circles (FOC) • Plot limiting lines of approach • Plot hydrophone effects • Plot screen sectors
References you should study to gain the knowledge you need to perform this skill:	• *Allied Antisubmarine Warfare Manual,* ATP 28; Ch. 9 • *Allied Maritime Tactical Instructions and Procedures,* ATP 1, Vol. 1; Ch. 9 • *Surface Ship Passive Localization and Target Motion Analysis,* NWP 3-21.51.3; Ch. 4, 5, 6, 7, App B • *Target Motion Analysis Techniques,* NWP 3-21.51.1; Ch. 2, App A
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on DRT/DDRT plotting information in a USW environment to include proper symbology, TMA plotting procedures at all plot stations and sonobuoy data information.

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General OS *Skill Area*	**Undersea Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Maintain USW status boards**
Knowledge you should have to perform this skill:	• How to maintain status boards during TMA
References you should study to gain the knowledge you need to perform this skill:	• *Surface Ship Passive Localization and Target Motion Analysis,* NWP 3-21.51.3; Ch. 3
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the duties associated with maintaining the TMA status board.

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General OS *Skill Area*	**Surface Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Plot SUW information**
Knowledge you should have to perform this skill:	How to: • Plot SUW information • Interpret SUW plotting
References you should study to gain the knowledge you need to perform this skill:	• *Allied Maritime Tactical Instructions and Procedures,* ATP 1, Vol. 1; Ch. 8 • *Antiship Cruise Missile Employment Manual,* NWP 3-20-71; Ch 2, App A, D • *Surface Ship Antisurface Warfare Tactics,* NWP 3-20.3; Ch. 4
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on SUW data plotting such as AOUs, ESM bearings, Harpoon seeker patterns, background shipping, third party targeting data, and landmasses.

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General OS *Skill Area*	**Surface Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Compare targeting solutions**
Knowledge you should have to perform this skill:	How to: • Compare targeting solutions between manual plots and automatic plots • Plot SUW information • Interpret SUW plotting
References you should study to gain the knowledge you need to perform this skill:	• *Antiship Cruise Missile Employment Manual,* NWP 3-20.71; App. B, D
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the information contained on both manual and automatic plots.

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General OS *Skill Area*	**Surface Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Determine ship's maneuvers**
Knowledge you should have to perform this skill:	• How to determine ship's maneuvers to prosecute a contact of interest (COI)
References you should study to gain the knowledge you need to perform this skill:	• *Antiship Cruise Missile Employment Manual,* NWP 3-20.71; Ch 3 • *Surface Ship Antisurface Warfare Tactics,* NWP 3-20.3; Ch. 2
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on maneuvering tactics to prosecute a COI.

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General OS *Skill Area*	**Naval Surface Fire Support**
A *skill* you are expected to perform from the General Skill Area above:	**Conduct radio telephone (R/T) communication during NSFS and maintain NSFS status board**
Knowledge you should have to perform this skill:	How to: • Conduct radio telephone communication on NSFS nets using proper radio telephone procedures • Plot fire mission data received from spotters on NSFS status board
References you should study to gain the knowledge you need to perform this skill:	• *Allied Naval Gunfire Support,* ATP 4; Ch. 2, 3 • *Naval Surface Gunnery,* NWP 3-20.32; Ch. 8, App. C • *Radiotelephone Procedures for the Conduct of Artillery and Naval Gunfire,* ACP-125 U.S. SUPP-2
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the R/T message formats and contents and fire mission data that is plotted on the NSFS status board.

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General OS *Skill Area*	**Naval Surface Fire Support**
A *skill* you are expected to perform from the General Skill Area above:	**Maintain geographic plot during NSFS**
Knowledge you should have to perform this skill:	How to: • Conduct NSFS navigational plotting • Plot targets using grid methods • Plot targets using polar methods • Plot targets using shift from known position methods • Plot friendly front lines • Plot ground observer and command post positions • Plot no fire zones • Lay out free fire zones • Plot weapons impact areas • Lay out gun target line • Plot counter battery targets
References you should study to gain the knowledge you need to perform this skill:	• *Allied Naval Gunfire Support,* ATP 4; Ch. 1
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on all areas of plotting for NSFS, from navigation to target plotting.

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General OS *Skill Area*	**Naval Surface Fire Support**
A *skill* you are expected to perform from the General Skill Area above:	**Maintain target data sheets**
Knowledge you should have to perform this skill:	• How to perform duties as R/T recorder and record target data received from spotter on target data sheets
References you should study to gain the knowledge you need to perform this skill:	• *Naval Surface Gunnery,* NWP 3-20.32; App. C
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the duties of the R/T recorder and the type of data received from the spotter on the beach.

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General OS *Skill Area*	**Amphibious Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Plot/track small craft during amphibious operations**
Knowledge you should have to perform this skill:	How to: • Determine the position of waves • Obtain and report visual bearings of boat waves • Plot ship's relation to line of departure (LOD) • Mark wave times • Read wave grids • Plot assault boat waves
References you should study to gain the knowledge you need to perform this skill:	• *Allied Maritime Tactical Instructions and Procedures,* ATP 1 Vol. 1; Ch. 11 • *Amphibious Operations - Ship-to-Shore Movement,* ATP 36; Ch. 3, 4, Annex A, B, C, D
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on plotting of landing craft information on various amphibious assault diagrams.

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General OS *Skill Area*	**Amphibious Operations**
A *skill* you are expected to perform from the General Skill Area above:	**Plot/track landing craft air cushion (LCAC) movements**
Knowledge you should have to perform this skill:	How to: • Plot landing craft air cushion (LCAC) ship-to-shore movement • Record LCAC movement
References you should study to gain the knowledge you need to perform this skill:	• *Allied Maritime Tactical Instructions and Procedures ,*ATP 1 Vol. 1; Ch. 11 • *Amphibious Operations - Ship-to-Shore Movement,* ATP 36, NATO; Ch. 1, 4
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on LCAC ship-to-shore movement.

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General OS *Skill Area*	**Amphibious Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Control small boat/LCAC ship-to-shore movements**
Knowledge you should have to perform this skill:	How to: • Control small craft in ship-to-shore movement.
References you should study to gain the knowledge you need to perform this skill:	• *Allied Maritime Tactical Instructions and Procedures,* ATP 1 Vol. 1; Ch. 11 • *Amphibious Operations - Ship-to-Shore Movement,* ATP 36; Ch. 4, Annex D, E, L
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the control of small craft and LCACs. This will include, but is not limited to, radiotelephone procedures and proper R/T transmissions.

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General OS *Skill Area*	**Amphibious Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Plot air traffic corridors for vertical assault**
Knowledge you should have to perform this skill:	How to: • Plot air traffic corridors for vertical assault • Plot air assault points
References you should study to gain the knowledge you need to perform this skill:	• *Allied Maritime Tactical Instructions and Procedures,* ATP 1 Vol. 1; Ch. 11 • *Amphibious Operations - Ship-to-Shore Movement,* ATP 36; Ch. 5, Annex E, K
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the airborne assault and the information required on the geographic plot.

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General OS *Skill Area*	**Search and Rescue**
A *skill* you are expected to perform from the General Skill Area above:	**Plot man overboard and make recommendations to recover man overboard**
Knowledge you should have to perform this skill:	How to: • Plot man overboard • Make man overboard recommendations • Recommend maneuvers to recover man overboard
References you should study to gain the knowledge you need to perform this skill:	• *Allied Maritime Tactical Instructions and Procedures,* ATP 1 Vol. 1; Ch. 2 • *National Search and Rescue Manual Vol. I: National Search and Rescue System,* JP 3-50; Ch. 4, 6 • *National Search and Rescue Manual Vol. II: National Search and Rescue System,* JP 3-50.1; Ch. 2, 3, 4
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on man overboard procedures and recovery maneuvers.

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General OS *Skill Area*	**Search and Rescue**
A *skill* you are expected to perform from the General Skill Area above:	**Determine maximum exposure time for personnel in the water**
Knowledge you should have to perform this skill:	• How to determine stay time for personnel in the water
References you should study to gain the knowledge you need to perform this skill:	• *National Search and Rescue Manual Vol. I: National Search and Rescue System,* JP 3-50; Ch. 4
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the stay times for personnel in the water.

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General OS *Skill Area*	**Search and Rescue**
A *skill* you are expected to perform from the General Skill Area above:	**Prepare and plot search patterns**
Knowledge you should have to perform this skill:	How to: • Prepare and plot shipboard search patterns • Prepare and plot using Halifax procedures
References you should study to gain the knowledge you need to perform this skill:	• *National Search and Rescue Manual Vol. II: National Search and Rescue System,* JP 3-50.1; Ch. 2, 3, 4
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on SAR search patterns, plotting, and Halifax plotting procedures.

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General OS *Skill Area*	**Search and Rescue**
A *skill* you are expected to perform from the General Skill Area above:	**Compute the effects of wind and current on rafts and personnel**
Knowledge you should have to perform this skill:	• How to compute the effects of wind and sea current on rafts and personnel in the water.
References you should study to gain the knowledge you need to perform this skill:	• *National Search and Rescue Manual Vol. I: National Search and Rescue System,* JP 3-50; Ch. 4, 6 • *National Search and Rescue Manual Vol. II: National Search and Rescue System,* JP 3-50.1; Ch. 2, 3, 4
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the computation of the effect of wind and current on rafts and personnel in the water.

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General OS *Skill Area*	**Navigation**
A *skill* you are expected to perform from the General Skill Area above:	**Plot precision anchorage**
Knowledge you should have to perform this skill:	How to: • Plot approaches and anchorage • Calculate anchor drop distances • Compute and plot drag circles • Compute and plot swing circles
References you should study to gain the knowledge you need to perform this skill:	• *Dutton's Navigation and Piloting,* 14th Ed.; Ch. 13 • *The American Practical Navigator: Bowditch,* NV Pub No. 9; Ch. 8
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on plotting of a precision anchorage, swing circle, drag circle and anchor drop distances.

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General OS *Skill Area*	**Navigation**
A *skill* you are expected to perform from the General Skill Area above:	**Establish ship's position during various navigational situations**
Knowledge you should have to perform this skill:	How to: • Obtain bearings and ranges from fixed points on navigational charts • Compute latitudes and longitudes from fixed information • Plot latitudes and longitudes from fixed information • Plot deviation and variation on charts • Provide mark times • Plot visual fixes • Determine radar range and bearing errors • Determine ships position using navigational aids • Compare ship's position data with bridge data • Compare radar scope presentation with the applicable chart • Select fixed navigational points with the navigational plotter • Maintain plot of ship's track using dead reckoning (DR)
References you should study to gain the knowledge you need to perform this skill:	• *The American Practical Navigator: Bowditch,* NV Pub No. 9; Ch. 7, 8, 13 • *Dutton's Navigation and Piloting,* 14th Ed.; Ch. 8, 11, 12

Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the various ways of establishing a ship's position while underway in both inland and open ocean steaming.

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General OS *Skill Area*	**Navigation**
A *skill* you are expected to perform from the General Skill Area above:	**Calculate set/drift and compensating/correcting courses**
Knowledge you should have to perform this skill:	How to: • Calculate compensating courses and speeds • Calculate correcting courses and speeds • Calculate set and drift
References you should study to gain the knowledge you need to perform this skill:	• *The American Practical Navigator: Bowditch,* NV Pub No. 9; Ch. 7 • *Dutton's Navigation and Piloting,* 14th Ed.; Ch 12
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the calculation of set/drift, compensating/correcting courses and speeds.

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General OS *Skill Area*	**Navigation**
A *skill* you are expected to perform from the General Skill Area above:	**Determine maneuvering actions for various situations during open ocean, coastal and harbor steaming.**
Knowledge you should have to perform this skill:	How to: • Determine actions for crossing situations • Determine actions for meeting situations • Determine actions for overtaking situations • Interpret rules of the road
References you should study to gain the knowledge you need to perform this skill:	• *Navigational Rules International-Inland,* COMDTINST M16672.2
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on maneuvering rules for all situations in both inland and open ocean steaming situations.

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General OS *Skill Area*	**Navigation**
A *skill* you are expected to perform from the General Skill Area above:	**Interpret/recommend fog and whistle signals in accordance with International Rules of the Road**
Knowledge you should have to perform this skill:	How to: • Obtain low visibility lookout information • Plot sound signals during low visibility navigation • Determine sound signals for existing situation • Recommend low visibility sound signals • Compare and correlate low visibility lookout information
References you should study to gain the knowledge you need to perform this skill:	• *Lookout Training Handbook,* NAVEDTRA 12968 • *Navigational Rules International-Inland,* COMDTINST M16672.2
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on sound and fog signals used in normal and low visibility steaming.

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General OS *Skill Area*	**Navigation**
A *skill* you are expected to perform from the General Skill Area above:	**Select and update navigational charts**
Knowledge you should have to perform this skill:	How to: • Plot approved tracks • Plot navigational hazards • Verify and update fixed navigational points • Update navigational charts using weekly notice to mariners
References you should study to gain the knowledge you need to perform this skill:	• *Catalog of Maps, Charts, and Related Products,* National Imagery and Mapping Agency Hydrographic Products Part 2 – Volume 1; Page 1-5 • *The American Practical Navigator: Bowditch,* NV Pub No. 9; Ch. 3, 4, 8, 25 • *Dutton's Navigation and Piloting,* 14th Ed.; Ch. 5, 6, 17
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on updating and correcting charts and plotting approved tracks.

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General OS *Skill Area*	**Navigation**
A *skill* you are expected to perform from the General Skill Area above:	**Plot various navigational data**
Knowledge you should have to perform this skill:	How to: • Plot latitudes and longitudes from navigational fix information • Determine and apply magnetic deviation and variation • Plot visual bearings and radar range and bearing information • Obtain fathometer readings and compare them with charts
References you should study to gain the knowledge you need to perform this skill:	• *The American Practical Navigator: Bowditch,* NV Pub No. 9; Ch. 6, 8, 13, 25 • *Dutton's Navigation and Piloting,* 14th Ed.; Ch. 3, 5, 11, 12, 36
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on procedures for plotting fix information from visual and radar information, applying magnetic variation/deviation and comparing fathometer readings to navigational charts.

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General OS *Skill Area*	**Electronic Systems Operations**
A *skill* you are expected to perform from the General Skill Area above:	**Energize/de-energize electronic equipment**
Knowledge you should have to perform this skill:	• How to energize and de-energize various electronic equipment in the Combat Information Center
References you should study to gain the knowledge you need to perform this skill:	• Combat Systems Operational Sequencing System manuals • NAVSEA Manuals covering Ship's Specific Radars • *Indicator Group AN/SPA-25G (General Information and Operations),* NAVSEA SE251-DG-MMO-010 • *JMCIS/NTCSA Users Guide Vol. I* • JMCIS/NTCSA-UG-001; Ch. 2 • *Link-11/Tadil "A" Standard Operating Procedures/Operators Manual,* OPNAVINST C3120.39 • *Standard Operating Procedures for NATO Link-11,* AdatP 11 • *XXX Class Combat Systems Doctrine,* COMNAVSURFLANT/COMNAVSURFPA CINST C3516 SERIES
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the procedures to energize and de-energize various electronic equipment in CIC.

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General OS *Skill Area*	**Electronic Systems Operations**
A *skill* you are expected to perform from the General Skill Area above:	**Operate radar equipment**
Knowledge you should have to perform this skill:	How to: • Operate radar repeaters • Measure radar sensitivity • Operate equipment under casualty conditions • Restore equipment operations under emergency conditions
References you should study to gain the knowledge you need to perform this skill:	• Combat Systems Operational Sequencing System manuals • NAVSEA Manuals covering Ship's Specific Radars • *Indicator Group AN/SPA-25G (General Information and Operations),* NAVSEA SE251-DG-MMO-010 • *XXX Class Combat Systems Doctrine,* COMNAVSURFLANT/COMNAVSURFPACINST C3516 SERIES
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the operation of various radar equipment in both normal and casualty modes.

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General OS *Skill Area*	**Electronic Systems Operations**
A *skill* you are expected to perform from the General Skill Area above:	**Operate naval tactical data system (NTDS) equipment**
Knowledge you should have to perform this skill:	How to: • Report TDS malfunctions • Operate equipment under casualty conditions • Enter/update TDS initialization data • Monitor TDS information • Operate TDS equipment
References you should study to gain the knowledge you need to perform this skill:	• Combat Systems Operational Sequencing System manuals (CSOSS) • Systems Operational Manuals (SOMs)
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the operation of NTDS equipment in both casualty and normal modes of operation.

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General OS *Skill Area*	**Electronic Systems Operations**
A *skill* you are expected to perform from the General Skill Area above:	**Operate Identification Friend or Foe (IFF) equipment**
Knowledge you should have to perform this skill:	How to: • Load IFF cryptological codes • Operate IFF equipment under casualty conditions
References you should study to gain the knowledge you need to perform this skill:	• Combat Systems Operational Sequencing System manuals (CSOSS) • *IFF/SIF Operational Procedures,* Allied Communication Publication, ACP-160 • *Programmed Instruction Handbook for Decoder Group AN/UPA-59(V)2,* NAVELEX 0967-LP-374-7050 • *Programmed Instruction Handbook for Decoder Group AN/UPA-59(V)2,* NAVELEX EE-230-FC-PIH-010 • Systems Operational Manuals (SOMs)
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the operations of the AIMS MK XII and AN/UPA-59 equipment installed onboard your ship.

Advancement Handbook for OS3

General OS *Skill Area*	**Electronic Systems Operations**
A *skill* you are expected to perform from the General Skill Area above:	**Operate Naval Tactical Command Systems Afloat (NTCS-A)/Joint Maritime Control Information Systems (JMCIS) equipment in various modes**
Knowledge you should have to perform this skill:	• How to operate Naval Tactical Command Afloat (NTCS-A)/Joint Maritime Control Information System (JMCIS) in participant mode
References you should study to gain the knowledge you need to perform this skill:	• *JMCIS/NTCS-A Users Guide Vol. I* JMCIS/NTCS-A-UG-001 • *JMCIS/NTCS-A Users Guide Vol .II* JMCIS/NTCS-A-UG-001
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the operation of the NTCS-A/JMCIS terminals in the participant mode.

Advancement Handbook for OS3

General OS *Skill Area*	**Communications**
A *skill* you are expected to perform from the General Skill Area above:	**Interpret ship's communications plan from OPTASK COMMS**
Knowledge you should have to perform this skill:	• How to interpret the ship's communications plan
References you should study to gain the knowledge you need to perform this skill:	• *Allied Maritime Structured Messages,* APP-4 Vol. 1; Ch. 1
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the content and format of a communications plan developed from the OPTASK COMMS written IAW the format in APP-4.

Advancement Handbook for OS3

General OS *Skill Area*	**Communications**
A *skill* you are expected to perform from the General Skill Area above:	**Set up and test radio circuits and speakers in CIC in accordance with the COMM PLAN**
Knowledge you should have to perform this skill:	How to: • Test communications systems • Set equipment conditions according to emission control (EMCON)
References you should study to gain the knowledge you need to perform this skill:	• *XXX Class Combat Systems Doctrine,* COMNAVSURFLANT/COMNAVSURFPACINST C3516 SERIES
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the procedures to set up radio circuits and assigned speakers in CIC as specified in the ship class combat systems doctrine.

Advancement Handbook for OS3

General OS *Skill Area*	**Communications**
A *skill* you are expected to perform from the General Skill Area above:	**Perform authentication procedures**
Knowledge you should have to perform this skill:	How to: • Perform timed authentication • Perform challenge and reply authentication
References you should study to gain the knowledge you need to perform this skill:	• *Basic Operational Communications Doctrine,* NWP 6-01; Ch. 10 • *Communications Instructions – Security,* Allied Communication Publication, ACP-122; Ch.4
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on authentication procedures.

Advancement Handbook for OS3

General OS *Skill Area*	**Communications**
A *skill* you are expected to perform from the General Skill Area above:	**Encode/decode communications**
Knowledge you should have to perform this skill:	• How to encode and decode tactical communications
References you should study to gain the knowledge you need to perform this skill:	• *Allied Maritime Tactical Signal and Maneuvering Book,* ATP 1, Vol. 2
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the procedures for encoding and decoding tactical communications.

Advancement Handbook for OS3

General OS *Skill Area*	**Communications**
A *skill* you are expected to perform from the General Skill Area above:	**Initiate Beadwindow and Gingerbread procedures**
Knowledge you should have to perform this skill:	How to: • Initiate Beadwindow reports • Initiate Gingerbread reports
References you should study to gain the knowledge you need to perform this skill:	• *Basic Operational Communications Doctrine,* NWP 6-01; Ch. 10
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on Beadwindow and Gingerbread procedures.

Advancement Handbook for OS3

General OS *Skill Area*	**Communications**
A *skill* you are expected to perform from the General Skill Area above:	**Perform internal/external communications**
Knowledge you should have to perform this skill:	How to: • Perform internal communications • Perform external communications
References you should study to gain the knowledge you need to perform this skill:	• *Basic Military Requirements,* NAVEDTRTA 12043 • *Communication Instructions General,* ACP-121 • *Communications Instructions Radiotelephone Procedures,* ACP-125
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on internal and external communication procedures and circuit designations.

Advancement Handbook for OS3

General OS *Skill Area*	**Technical Administration**
A *skill* you are expected to perform from the General Skill Area above:	**Inventory classified material**
Knowledge you should have to perform this skill:	• How to perform classified material inventory
References you should study to gain the knowledge you need to perform this skill:	• *The Naval Warfare Publication System,* NWP 1-01
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on classified material handling, inventory and accountability.

Advancement Handbook for OS3

General OS *Skill Area*	**Technical Administration**
A *skill* you are expected to perform from the General Skill Area above:	**Demonstrate emergency destruction procedures**
Knowledge you should have to perform this skill:	• How to perform emergency action procedures
References you should study to gain the knowledge you need to perform this skill:	• *Department of the Navy Information and Personnel Security Program Regulation,* OPNAVINST 5510.1; Ch. 17
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on emergency destruction and other emergency action procedures.

Advancement Handbook for OS3

General OS *Skill Area*	**Technical Administration**
A *skill* you are expected to perform from the General Skill Area above:	**Conduct daily destruction of CMS material**
Knowledge you should have to perform this skill:	How to: • Perform classified material inventory • Conduct daily CMS destruction
References you should study to gain the knowledge you need to perform this skill:	• *Communications security material system (CMS) Policy and Procedures Manual,* CMS 1; Ch. 5
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on CMS handling and destruction.

Advancement Handbook for OS3

General OS *Skill Area*	**Technical Administration**
A *skill* you are expected to perform from the General Skill Area above:	**Demonstrate proper handling, storage, and disposal of hazardous material**
Knowledge you should have to perform this skill:	• Requirements of the Hazardous Material User's Guide (HMUG) • Procedures for the proper handling, storage and disposal of hazardous material
References you should study to gain the knowledge you need to perform this skill:	• *Navy Occupational Safety and Health Program Manual for Forced Afloat,* OPNAVINST 5100.19 Vol. I; Ch. 3 • *Navy Occupational Safety and Health Program Manual for Forced Afloat,* OPNAVINST 5100.19 Vol. II; Ch. 23
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the handling, storage, and disposal of hazardous material.

Advancement Handbook for OS3

General OS *Skill Area*	**Technical Administration**
A *skill* you are expected to perform from the General Skill Area above:	**Maintain classified publications library**
Knowledge you should have to perform this skill:	How to: • Update publication correction cards • Maintain the publications allowance
References you should study to gain the knowledge you need to perform this skill:	• *The Naval Warfare Publication System,* NWP 1-01
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the proper maintenance of the ship's publications allowance.

Part 2

Advancement Handbook for OS2

Advancement Handbook for OS2

General OS *Skill Area*	**Tactical Support**
A *skill* you are expected to perform from the General Skill Area above:	**Evaluate tactical and EMCON situations**
Knowledge you should have to perform this skill:	How to: • Evaluate tactical situations • Evaluate and monitor EMCON situations
References you should study to gain the knowledge you need to perform this skill:	• *Allied Maritime Tactical Instructions and Procedures,* ATP-1, Vol. 1; Ch. 5 • *Electronic Warfare Coordination,* NWP 3-13.1.13; Ch 8, 9
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on tactical situations (i.e. rules of the road, maneuvering board, special plots, weapons employment) and the setting, evaluation and monitoring of EMCON.

Advancement Handbook for OS2

General OS *Skill Area*	**Tactical Support**
A *skill* you are expected to perform from the General Skill Area above:	**Interpret rules of engagement (ROE)**
Knowledge you should have to perform this skill:	• How to interpret the current ROE for your operating area
References you should study to gain the knowledge you need to perform this skill:	• *Allied Maritime Tactical Instructions and Procedures,* ATP 1, Vol. 1, Ch. 6
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect general questions on rules of engagement and the requirements associated with the escalation of hostilities.

Advancement Handbook for OS2

General OS *Skill Area*	**Air Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Determine aircraft alert postures and update the airborne aircraft status board**
Knowledge you should have to perform this skill:	How to: • Determine aircraft alert status • Determine aircraft fuel state • Determine aircraft weapons status
References you should study to gain the knowledge you need to perform this skill:	• *Antiair Warfare,* NWP 3-01.01; Ch 4, App. D
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on aircraft alert postures, the reports required to obtain aircraft fuel and weapons state and the information plotted on the airborne aircraft status board.

Advancement Handbook for OS2

General OS *Skill Area*	**Air Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Describe return-to-force procedures and monitor return-to-force aircraft**
Knowledge you should have to perform this skill:	• Understanding of return-to-force (RTF) procedures • How to monitor return-to-force aircraft
References you should study to gain the knowledge you need to perform this skill:	• *Allied Maritime Tactical Instructions and Procedures,* ATP-1, Vol. 1, Ch. 6 • *Antiair Warfare,* NWP 3-01.01; Ch. 6 • *Antiair Warfare Commander's Manual,* NWP 3-01.10; Ch. 5
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the procedures for strike/patrol aircraft to use when returning to the force.

Advancement Handbook for OS2

General OS *Skill Area*	**Air Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Describe the fighter engagement zone (FEZ), missile engagement zone (MEZ), and crossover zone.**
Knowledge you should have to perform this skill:	• The characteristics of a FEZ • The characteristics of a MEZ • The characteristics of a crossover zone
References you should study to gain the knowledge you need to perform this skill:	• *Allied Maritime Tactical Instructions and Procedures,* ATP-1, Vol. 1, Ch. 7 • *Antiair Warfare,* NWP 3-01.01; Ch. 6 • *Antiair Warfare Commander's Manual,* NWP 3-01.10; Ch. 5
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on establishment and monitoring of a FEZ, MEZ, and crossover zone.

Advancement Handbook for OS2

General OS *Skill Area*	**Air Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Recommend activation and deactivation of ID doctrine statements.**
Knowledge you should have to perform this skill:	• Contents and use of ID doctrine statements
References you should study to gain the knowledge you need to perform this skill:	• *Antiair Warfare Commander's Manual*, NWP 3-01.10; Ch. 5
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the appropriate times to activate and deactivate ID doctrine statements.

Advancement Handbook for OS2

General OS *Skill Area*	**Undersea Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Compute limiting lines of approach and a cone of courses.**
Knowledge you should have to perform this skill:	How to: • Compute limiting lines of approach • Compute a cone of courses
References you should study to gain the knowledge you need to perform this skill:	• *Allied Antisubmarine Warfare Manual,* ATP-28; Ch. 9
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the computations of limiting lines of submerged, snorkel, and surfaced approaches and the cone of courses a subsurface contact may take.

Advancement Handbook for OS2

General OS *Skill Area*	**Undersea Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Recommend and implement USW search and attack plans**
Knowledge you should have to perform this skill:	• Contents and use of USW search plans • Contents and use of USW attack plans
References you should study to gain the knowledge you need to perform this skill:	• *Allied Antisubmarine Warfare Manual,* ATP-28; Ch. 4, 9, 10, 11 • *Allied Maritime Tactical Instructions and Procedures,* ATP-1, Vol. 1; Ch. 9 • *Surface Undersea Warfare Attack and Evasion Tactics Manual,* Surface Warfare Development Group TACMEMO SZ-5050-1-96; Ch. 2
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the different search and attack plans associated with single ship, ship/aircraft, and multi-ship groups and the scene-of-action commander duties.

Advancement Handbook for OS2

General OS *Skill Area*	**Undersea Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Describe USW intelligence sources**
Knowledge you should have to perform this skill:	• The characteristics of USW intelligence sources
References you should study to gain the knowledge you need to perform this skill:	• *Surface Ship Antisurface Warfare Tactics, NWP 3-20.2; Ch. 4* • *Surface Ship Passive Localization and Target Motion Analysis*, NWP 3-21.51.3; Ch. 4
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the various sources used to gather intelligence data against a submarine.

Advancement Handbook for OS2

General OS *Skill Area*	**Undersea Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Recommend torpedo evasion tactics**
Knowledge you should have to perform this skill:	• The characteristics of torpedo evasion tactics for wake homing and non-wake homing torpedoes
References you should study to gain the knowledge you need to perform this skill:	• *Surface Undersea Warfare Attack and Evasion Tactics Manual,* Surface Warfare Development Group TACMEMO SZ-5050-1-96; Ch. 5
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the various torpedo evasion tactics described in the reference above.

Advancement Handbook for OS2

General OS *Skill Area*	**Surface Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Correlate SUW targeting data**
Knowledge you should have to perform this skill:	• How to correlate targeting data obtained from radar, ESM, Link-11, NTCS/A, etc.
References you should study to gain the knowledge you need to perform this skill:	• *Antiship Cruise Missile Employment Manual,* NWP 3-20.71; Ch. 2
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the various types of targeting data available to the SUW team and the process of correlating the data into a target solution.

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General OS *Skill Area*	**Naval Surface Fire Support**
A *skill* you are expected to perform from the General Skill Area above:	**Convert spotter grid corrections to corrective grids**
Knowledge you should have to perform this skill:	• How to convert the grid corrections received from the spotter to corrective grids
References you should study to gain the knowledge you need to perform this skill:	• Instructions located on back of Grid Spot Converter Mark 35 Mod. 0
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the procedures of converting spotter grids into corrective grids.

Advancement Handbook for OS2

General OS *Skill Area*	**Naval surface Fire Support**
A *skill* you are expected to perform from the General Skill Area above:	**Conduct check fire and check solutions**
Knowledge you should have to perform this skill:	How to: • Conduct check fire procedures • Conduct check solution procedures
References you should study to gain the knowledge you need to perform this skill:	• *Allied Naval Gunfire Support,* ATP 4; Ch. 1
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on check fire and check solution procedures.

Advancement Handbook for OS2

General OS *Skill Area*	**Amphibious Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Construct amphibious assault diagrams**
Knowledge you should have to perform this skill:	How to: • Plot assault lanes, corridors, and swept channels • Plot amphibious assault diagrams
References you should study to gain the knowledge you need to perform this skill:	• *Amphibious Operations – Ship-to-Shore Movement,* ATP 36; Ch. 3
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the information contained on the amphibious assault diagram.

Advancement Handbook for OS2

General OS *Skill Area*	**Amphibious Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Control assault waves**
Knowledge you should have to perform this skill:	• How to control assault waves
References you should study to gain the knowledge you need to perform this skill:	• *Amphibious Operations – Ship-to-Shore Movement,* ATP 36; Ch. 4, Annex A, D, E • *Ship-to-Shore Movement,* NWP 3-02.1; Ch. 3, Appendix A, D, E
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the control of and communications with assault waves enroute to their designated beach.

Advancement Handbook for OS2

General OS *Skill Area*	**Amphibious Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Control LCAC movements**
Knowledge you should have to perform this skill:	• How to control LCAC movements
References you should study to gain the knowledge you need to perform this skill:	• *Amphibious Operations – Ship-to-Shore Movement,* ATP 36; Ch. 4 • *Ship-to-Shore Movement,* NWP 3-02.1; Ch. 4
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the control of and communications with LCACs enroute to their designated beach.

Advancement Handbook for OS2

General OS *Skill Area*	**Search and Rescue**
A *skill* you are expected to perform from the General Skill Area above:	**Coordinate SAR operations with SAR facilities**
Knowledge you should have to perform this skill:	• How to coordinate assistance with a SAR facility
References you should study to gain the knowledge you need to perform this skill:	• *National Search and Rescue Manual Vol. I: National Search and Rescue System,* JP 3-50; Ch 2, 3, 4, 5, 6 • *Search and Rescue,* ATP 10; Ch. 4
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the SAR organization and the coordination between the SAR facilities and the SAR units.

Advancement Handbook for OS2

General OS *Skill Area*	**Search and Rescue**
A *skill* you are expected to perform from the General Skill Area above:	**Prepare SAR aircraft search patterns and provide approaches and vectors to SAR aircraft**
Knowledge you should have to perform this skill:	How to: • Prepare aircraft search patterns • Provide SAR approaches for SAR aircraft • Provide vectors for SAR aircraft
References you should study to gain the knowledge you need to perform this skill:	• *National Search and Rescue manual Vol I: National Search and Rescue System,* JP 3-50; App. D, E • *National Search and Rescue Manual Vol II: Planning Handbook,* JP 3-05.1; Ch . 1, 2, 3, 4, 7 • *Search and Rescue,* ATP 10; Ch. 6, 7
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the various aircraft search patterns and the communications between the controlling unit and search aircraft.

Advancement Handbook for OS2

General OS *Skill Area*	**Search and Rescue**
A *skill* you are expected to perform from the General Skill Area above:	**Compute parachute drift**
Knowledge you should have to perform this skill:	• How to compute parachute drift
References you should study to gain the knowledge you need to perform this skill:	• *National Search and Rescue manual Vol I: National Search and Rescue System,* JP 3-50; Ch. 5
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the computation of parachute drift.

Advancement Handbook for OS2

General OS *Skill Area*	**Navigation**
A *skill* you are expected to perform from the General Skill Area above:	**Prepare CIC for precision anchorage**
Knowledge you should have to perform this skill:	• How to prepare CIC for precision anchorage
References you should study to gain the knowledge you need to perform this skill:	• *Navigation and Piloting,* Dutton's; Ch. 13 • *The American Practical Navigator,* Bowditch, NV PUB 9; Ch. 8
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the procedures required to prepare CIC for and the conduct of a precision anchorage.

Advancement Handbook for OS2

General OS *Skill Area*	**Navigation**
A *skill* you are expected to perform from the General Skill Area above:	**Maintain CIC chart library**
Knowledge you should have to perform this skill:	How to: • Maintain a chart library • Maintain chart correction cards
References you should study to gain the knowledge you need to perform this skill:	• *Catalog of Maps, Charts, and Related Products,* National Imagery and Mapping Agency Hydrographic Products Part 2 – Volume 1 • *Navigation and Piloting,* Dutton's; Ch. 5 • *Nautical Chart Symbols, Abbreviations, and Terms,* Chart 1
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on how to make chart corrections, how to order charts, weekly Notice to Mariners, and the DMA chart system.

Advancement Handbook for OS2

General OS *Skill Area*	**Electronic Systems Operations**
A *skill* you are expected to perform from the General Skill Area above:	**Initialize link communications and perform link track correlation**
Knowledge you should have to perform this skill:	How to: • Initialize link communications • Perform link track correlation
References you should study to gain the knowledge you need to perform this skill:	• Applicable Combat Systems Operational Sequencing System manuals (CSOSS) • Applicable Systems Operational Manuals (SOMs) • *Standard Operating procedures for Naval Tactical Data Systems Model 4 Link 11,* OPNAVINST C3120.39; Ch. 5, 6 • *Standard Operating Procedures for NATO Link-11,* AdatP 11
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the link initialization process, how to establish, enter and run a link picture, and how to correlate link track information.

Advancement Handbook for OS2

General OS *Skill Area*	**Electronic Systems Operations**
A *skill* you are expected to perform from the General Skill Area above:	**Monitor tactical data systems interfaces**
Knowledge you should have to perform this skill:	• How to monitor TDS interfaces
References you should study to gain the knowledge you need to perform this skill:	• Applicable Combat Systems Operational Sequencing System manuals (CSOSS) • Applicable Systems Operational Manuals (SOMs)
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the various TDS equipment and the procedures used with CSOSS to restore casualties.

Advancement Handbook for OS2

General OS *Skill Area*	**Electronic Systems Operations**
A *skill* you are expected to perform from the General Skill Area above:	**Configure NTCS-A/JMCIS for battle group operations**
Knowledge you should have to perform this skill:	• How to configure NTCS-A/JMCIS for operations
References you should study to gain the knowledge you need to perform this skill:	• Applicable Combat Systems Operational Sequencing System manuals (CSOSS) • Applicable Systems Operational Manuals (SOMs) • Applicable NTCS-A/JMCIS User Guides
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on how to setup and operate the NTCS-A/JMCIS systems in a battle group environment.

Advancement Handbook for OS2

General OS *Skill Area*	**Communications**
A *skill* you are expected to perform from the General Skill Area above:	**Establish and test communications patches**
Knowledge you should have to perform this skill:	How to: • Establish radio communication patches • Test radio communication patches
References you should study to gain the knowledge you need to perform this skill:	• Applicable Combat Systems Operational Sequencing System manuals (CSOSS) • Applicable Systems Operational Manuals (SOMs)
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the procedures for establishing and testing radio communication patches in CIC.

Advancement Handbook for OS2

General OS *Skill Area*	**Communications**
A *skill* you are expected to perform from the General Skill Area above:	**Restore lost communications**
Knowledge you should have to perform this skill:	• How to restore lost radio communications
References you should study to gain the knowledge you need to perform this skill:	• Applicable Combat Systems Operational Sequencing System manuals (CSOSS) • Applicable Systems Operational Manuals (SOMs)
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the procedures for restoring lost radio communications.

Advancement Handbook for OS2

General OS *Skill Area*	**Communications**
A *skill* you are expected to perform from the General Skill Area above:	**Draft operational reports (OPREP) and situational reports (SITREP)**
Knowledge you should have to perform this skill:	How to: • Draft operational reports (OPREPS) • Draft situational reports (SITREPS)
References you should study to gain the knowledge you need to perform this skill:	• *Allied Maritime Tactical Instructions and Procedures,* ATP-1, Vol. 1; Ch. 4, 6 • *Operational Reports,* NWP 1-03.1
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the content and purposes of various Operational Reports (OPREPS, MOVEREPS, CASREPS, LOGREQS, etc.) and situational reports.

Advancement Handbook for OS2

General OS *Skill Area*	**Communications**
A *skill* you are expected to perform from the General Skill Area above:	**Interpret and draft naval and joint messages**
Knowledge you should have to perform this skill:	How to: • Interpret naval and joint messages • Draft naval and joint messages
References you should study to gain the knowledge you need to perform this skill:	• *Allied maritime Structured Messages,* APP-4; Vol I & II
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on how to write and read joint and naval messages (i. e. OPTASKS, PREEXes, POSTATS)

Advancement Handbook for OS2

General OS *Skill Area*	**Technical Administration**
A *skill* you are expected to perform from the General Skill Area above:	**Prepare classified document destruction reports**
Knowledge you should have to perform this skill:	• How to prepare classified material destruction reports
References you should study to gain the knowledge you need to perform this skill:	• *Information and Personnel Security Program Regulation,* OPNAVINST 5510.1; Ch. 17
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the procedures for destroying classified material and the reports associated with the destruction.

Advancement Handbook for OS2

General OS *Skill Area*	**Technical Administration**
A *skill* you are expected to perform from the General Skill Area above:	**Conduct classified material inventory spot checks**
Knowledge you should have to perform this skill:	• How to conduct classified material inventory spot checks
References you should study to gain the knowledge you need to perform this skill:	• *Information and Personnel Security Program Regulation,* OPNAVINST 5510.1; Ch. 10
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the inventory procedures for classified material.

Advancement Handbook for OS2

General OS *Skill Area*	**Technical Administration**
A *skill* you are expected to perform from the General Skill Area above:	**Enter changes to operational plans and operational orders and conduct page checks**
Knowledge you should have to perform this skill:	• How to enter pub changes
References you should study to gain the knowledge you need to perform this skill:	• *The Naval Warfare Publication System,* NWP 1-01; Ch. 2, 5
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on how often publications are reviewed and the procedures for entering changes.

Advancement Handbook for OS2

General OS *Skill Area*	**Technical Administration**
A *skill* you are expected to perform from the General Skill Area above:	**Prepare chart requisitions**
Knowledge you should have to perform this skill:	• How to prepare chart requisitions
References you should study to gain the knowledge you need to perform this skill:	• *Catalog of Maps, Charts, and Related Products,* National Imagery and Mapping Agency Hydrographic Products, Part 2 – Volume 1
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the DMA ordering system and the different procedures you can use to order charts.

Advancement Handbook for OS2

General OS *Skill Area*	**Technical Administration**
A *skill* you are expected to perform from the General Skill Area above:	**Supervise emergency destruction procedures**
Knowledge you should have to perform this skill:	• How to supervise emergency destructions
References you should study to gain the knowledge you need to perform this skill:	• *Information and Personnel Security Program Regulation,* OPNAVINST 5510.1; Ch. 17
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the how to conduct emergency destructions and the order of priority of material destruction.

Advancement Handbook for OS2

General OS *Skill Area*	**Technical Administration**
A *skill* you are expected to perform from the General Skill Area above:	**Supervise CMS destructions**
Knowledge you should have to perform this skill:	• How to supervise CMS destructions
References you should study to gain the knowledge you need to perform this skill:	• *Communications Security Material System (CMS) Policy and Procedures Manual,* CMS 1; Ch. 5, 7
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the procedures for destroying CMS material and the associated reports and documentation.

Part 3

Advancement Handbook for OS1

Advancement Handbook for OS1

General OS S*kill Area*	**Tactical Support**
A *skill* you are expected to perform from the General Skill Area above:	**Evaluate radar degradations due to environmental conditions**
Knowledge you should have to perform this skill:	• How to evaluate radar degradations caused by environmental conditions
References you should study to gain the knowledge you need to perform this skill:	• *Radar Principles,* Navy Electricity and Electronics Training Series – Module 18, NAVEDTRA 172-18-00-84
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the effects the environment has on radar presentations.

Advancement Handbook for OS1

General OS *Skill Area*	**Tactical Support**
A *skill* you are expected to perform from the General Skill Area above:	**Train ship's lookouts**
Knowledge you should have to perform this skill:	• Requirements and procedures for training ship's lookouts
References you should study to gain the knowledge you need to perform this skill:	• *Lookout Training Handbook,* NAVEDTRA 12968
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the duties and responsibilities of a lookout and the reports a lookout should make.

Advancement Handbook for OS1

General OS *Skill Area*	**Tactical Support**
A *skill* you are expected to perform from the General Skill Area above:	**Prepare CIC for special evolutions**
Knowledge you should have to perform this skill:	• How to prepare CIC for special evolutions
References you should study to gain the knowledge you need to perform this skill:	• Ship's Class Combat Systems Doctrine, COMNAVSURFLANT/COMNASVSURF PACINST C3516 SERIES
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on how to prepare CIC for special evolutions such as UNREP, flight ops, plane guard, sea and anchor, etc.

Advancement Handbook for OS1

General OS *Skill Area*	**Tactical Support**
A *skill* you are expected to perform from the General Skill Area above:	**Transition CIC between conditions of readiness**
Knowledge you should have to perform this skill:	• How to transition CIC between conditions I, II, III, and IV
References you should study to gain the knowledge you need to perform this skill:	• Ship's Class Combat Systems Doctrine, COMNAVSURFLANT/COMNASVSURF PACINST C3516 SERIES
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the procedures for transitioning CIC between the different conditions of readiness.

Advancement Handbook for OS1

General OS *Skill Area*	**Tactical Support**
A *skill* you are expected to perform from the General Skill Area above:	**Conduct and train CIC in a multi-threat training scenario**
Knowledge you should have to perform this skill:	• How to develop and conduct multi-threat training scenarios
References you should study to gain the knowledge you need to perform this skill:	• *Surface Forces Training Manual,* COMNAVSURFLANTINST 3502.2
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on how to develop and how to conduct a multi-threat training scenario.

Advancement Handbook for OS1

General OS *Skill Area*	**Air Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Determine surveillance and engageability of assigned AW areas**
Knowledge you should have to perform this skill:	How to: • Determine surveillance of assigned AW areas • Determine the engageability of assigned AW areas
References you should study to gain the knowledge you need to perform this skill:	• *Allied Maritime Tactical Instructions and Procedures,* ATP-1, Vol. I; Ch. 7 • *Antiair Warfare,* NWP 3-01.1
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the process of determining how to conduct surveillance of assigned AW areas and how to engage contacts in those areas.

Advancement Handbook for OS1

General OS *Skill Area*	**Air Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Recommend types of weapons to be used against hostile contacts and maneuvers to employ AW batteries**
Knowledge you should have to perform this skill:	How to: • Employ AW weapons • Maneuver to employ AW batteries
References you should study to gain the knowledge you need to perform this skill:	• *Allied Maritime Tactical Instructions and Procedures,* ATP-1, Vol. I; Ch. 7 • *Antiair Warfare*, NWP 3-01.1
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on AW weapons employment and maneuvers to employ AW weapons batteries.

Advancement Handbook for OS1

General OS *Skill Area*	**Air Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Recommend use of electronic protection (EP)**
Knowledge you should have to perform this skill:	• How to employ electronic protection (EP)
References you should study to gain the knowledge you need to perform this skill:	• *Electronic Warfare Coordination,* NWP 3-13.1.13; Ch. 6
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the employment of EP devices such as SRBOC, rubber ducks, and torch rounds.

Advancement Handbook for OS1

General OS *Skill Area*	**Air Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Coordinate AW events**
Knowledge you should have to perform this skill:	How to: • Coordinate AW events between the AW Commander and the Air Resources Element Coordinator (AREC) • Coordinate AW events with the Command and Control Warfare Coordinator (C2W)
References you should study to gain the knowledge you need to perform this skill:	• *Antiair Warfare,* NWP 3-01.01 • *Antiair Warfare Commander's Manual,* NWP 3-01.10; Ch. 3
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the coordination required to conduct AW events such as aircraft requirements for AW events, daily message air plans, and coordination required to change the mission/tasking of an aircraft already airborne.

Advancement Handbook for OS1

General OS *Skill Area*	**Air Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Recommend ship's action for anti-ship missile defense (ASMD)**
Knowledge you should have to perform this skill:	• How plan and carry out anti-ship missile defense (ASMD)
References you should study to gain the knowledge you need to perform this skill:	• *Allied Maritime Tactical Instructions and Procedures,* ATP-1, Vol. I; Ch. 7
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the coordination, planning and promulgation of ASMD reactions.

Advancement Handbook for OS1

General OS *Skill Area*	**Undersea Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Plot waterspace management areas** [C095]
Knowledge you should have to perform this skill:	• How to plot waterspace management areas
References you should study to gain the knowledge you need to perform this skill:	• *Allied Maritime Tactical Instructions and Procedures,* ATP-1, Vol. I; Ch. 6
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the plotting of all waterspace management areas and the establishment of the different management areas such as JTAA, ASWFA, SAA, havens, and stove pipes.

Advancement Handbook for OS1

General OS *Skill Area*	**Undersea Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Evaluate TMA plots**
Knowledge you should have to perform this skill:	How to: • Evaluate time/bearing and time/frequency plots • Evaluate geographic plots • Evaluate evaluator's plots • Evaluate LOS diagrams
References you should study to gain the knowledge you need to perform this skill:	• *Surface Ship Passive Localization and Target Motion Analysis,* NWP 3-21.51.3 • *Target Motion Analysis Techniques,* NWP 3-21.51.1
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the procedures for maintaining TMA plots and the information plotted on the various TMA plots.

Advancement Handbook for OS1

General OS *Skill Area*	**Undersea Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Determine attack criteria**
Knowledge you should have to perform this skill:	How to: • Determine attack criteria for urgent attacks • Determine attack criteria for deliberate attacks
References you should study to gain the knowledge you need to perform this skill:	• *Allied Antisubmarine Warfare Manual,* ATP-28; Ch 4, 5 • *Allied Maritime Tactical Instructions and Procedures,* ATP-1, Vol. I; Ch. 9 • *SH-60F Tactical Manual,* NWP 3-22.5-SH60F; Ch. 9 • *(TACAID) for Air ASW,* NWP 3-22.5 ASW TAC; Ch. 8
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on determining the attack criteria and the preferred type of weapon to use for an urgent and deliberate attack for both ship's and USW aircraft.

Advancement Handbook for OS1

General OS *Skill Area*	**Undersea Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Recommend DATUM approach for Surface Attack Units (SAU)**
Knowledge you should have to perform this skill:	• How to determine DATUM approach for SAU
References you should study to gain the knowledge you need to perform this skill:	• *Allied Antisubmarine Warfare Manual,* ATP-28; Ch. 10 • *Allied Maritime Tactical Instructions and Procedures,* ATP-1, Vol. I; Ch. 9 • *Antisubmarine Evasive Steering,* ATP-3; Ch. 1,2
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the different DATUM approach methods and evasive steering.

Advancement Handbook for OS1

General OS *Skill Area*	**Surface Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Recommend SUW engagement tactics**
Knowledge you should have to perform this skill:	• When and how to employ specific SUW engagement tactics
References you should study to gain the knowledge you need to perform this skill:	• *Antiship Cruise Missile Employment Manual,* NWP 3-20.71; Ch. 3, 4, App. B, D • *Surface Ship Antisurface Warfare tactics,* NWP 3-20.3; Ch. 4
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on SUW engagement tactics such as salvo size, search patterns, engagement plans, way points, environmental factors, and the weapons capabilities of the attacking unit.

Advancement Handbook for OS1

General OS *Skill Area*	**Surface Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Recommend launch parameters for SUW missiles**
Knowledge you should have to perform this skill:	• Launch parameters for SUW missiles
References you should study to gain the knowledge you need to perform this skill:	• *Surface Ship Antisurface Warfare Tactics,* NWP 3-20.3; Ch. 4
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on launch parameters for the Harpoon Missile.

Advancement Handbook for OS1

General OS *Skill Area*	**Surface Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Evaluate SUW plots**
Knowledge you should have to perform this skill:	How to: • Evaluate geographic plots • Evaluate time/bearing plots
References you should study to gain the knowledge you need to perform this skill:	• *Antiship Cruise Missile Employment Manual,* NWP 3-20.71; App. D • *Surface Ship Passive Localization and Target Motion Analysis,* NWP 3-21.51.3
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the information contained on and the procedures for plotting on the geographic plot and the time/bearing plot.

Advancement Handbook for OS1

General OS *Skill Area*	**Amphibious Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Coordinate amphibious boat control teams**
Knowledge you should have to perform this skill:	• How to coordinate amphibious boat control teams
References you should study to gain the knowledge you need to perform this skill:	• *Allied Maritime Tactical Instructions and Procedures,* ATP 1, Vol. I; Ch. 11 • *Amphibious Operations - Ship-to-Shore Movement,* ATP 10; Ch. 4, Annex D, E, L • *Ship-to-Shore Movement,* NWP 3-02.1; Ch. 3, Appendix A, D, E
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the control of small boats in the ship-to-shore movement and the communications required for such movements.

Advancement Handbook for OS1

General OS *Skill Area*	**Amphibious Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Review amphibious diagrams**
Knowledge you should have to perform this skill:	• How to interpret amphibious diagrams
References you should study to gain the knowledge you need to perform this skill:	• *Amphibious Operations – Ship-to-Shore Movement,* ATP 36; Ch. 3
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the information required on the various amphibious diagrams.

Advancement Handbook for OS1

General OS *Skill Area*	**Search and Rescue**
A *skill* you are expected to perform from the General Skill Area above:	**Coordinate SAR teams**
Knowledge you should have to perform this skill:	• How to coordinate SAR teams
References you should study to gain the knowledge you need to perform this skill:	• *National Search and Rescue Manual Vol. I: National Search and Rescue System,* JP 3-50; Ch 2, 3, 4, 5, 6 • *Search and Rescue,* ATP 10; Ch. 4
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the process of conducting a SAR mission, the coordination required with other units, and the communications required between the search units and the shore facilities.

Advancement Handbook for OS1

General OS *Skill Area*	**Electronic Systems Operations**
A *skill* you are expected to perform from the General Skill Area above:	**Conduct combat systems testing**
Knowledge you should have to perform this skill:	• How to conduct combat systems testing
References you should study to gain the knowledge you need to perform this skill:	• Applicable Combat Systems Operational Sequencing System (CSOSS) manuals
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the procedures of conducting a combat systems test.

Advancement Handbook for OS1

General OS *Skill Area*	**Communications**
A *skill* you are expected to perform from the General Skill Area above:	**Formulate ship's communication plan**
Knowledge you should have to perform this skill:	• How to formulate a ship's communication plan from OPTASK COMMS
References you should study to gain the knowledge you need to perform this skill:	• *Allied Maritime Structured Messages,* APP 4, Vol. I; Ch. 1
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the format of the OPTASK COMMS and the information required to set up the ship's communication plan.

Advancement Handbook for OS1

General OS *Skill Area*	**Communications**
A *skill* you are expected to perform from the General Skill Area above:	**Maintain local CMS inventory**
Knowledge you should have to perform this skill:	How to: • Maintain a local CMS account • Prepare CMS destruction documents • Obtain monthly CMS publications and fill out proper documentation
References you should study to gain the knowledge you need to perform this skill:	• *Communications Security Material System (CMS) Policy and Procedures,* CMS 1
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the requirements for maintaining a CMS account, such as inventory, destruction, and use of CMS material.

Advancement Handbook for OS1

General OS *Skill Area*	**Technical Administration**
A *skill* you are expected to perform from the General Skill Area above:	**Review hazardous material (HAZMAT) inventories**
Knowledge you should have to perform this skill:	• How to review HAZMAT inventories
References you should study to gain the knowledge you need to perform this skill:	• *Navy Occupational Safety and Health Program Manual for Forces Afloat,* OPNAVINST 5100.19, Vol. I; Ch. 3 • *Navy Occupational Safety and Health Program Manual for Forces Afloat,* OPNAVINST 5100.19, Vol. II; Ch. 23
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on how to inventory and stow HAZMAT.

Part 4

Advancement Handbook for OSC

Advancement Handbook for OSC

General OS *Skill Area*	**Air Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Assign hostile aircraft to weapons systems**
Knowledge you should have to perform this skill:	How to: • Assign hostile aircraft to guns • Assign hostile aircraft to missiles
References you should study to gain the knowledge you need to perform this skill:	• *Antiair Warfare,* NWP 3-01.01; Ch. 5 • Applicable Systems Operational Manuals (SOMs) or Quick Reference Guide (QRG)
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the proper communications required to assign hostile aircraft to weapons systems.

Advancement Handbook for OSC

General OS *Skill Area*	**Air Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Coordinate AW weapons employment**
Knowledge you should have to perform this skill:	• How to coordinate employment of guns and surface-to-air missiles in an AW environment
References you should study to gain the knowledge you need to perform this skill:	• *Antiair Warfare,* NWP 3-01.01, Ch. 6
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on coordinating AW weapons for both an AW force and single ship operations.

Advancement Handbook for OSC

General OS *Skill Area*	**Undersea Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Recommend employment of active countermeasures**
Knowledge you should have to perform this skill:	• How to employ AN/SLQ-25 NIXIE
References you should study to gain the knowledge you need to perform this skill:	• *Surface Undersea Warfare Attack and Evasion Tactics Manual,* Surface Warfare Development Group TACMEMO SZ-5050-1-96
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the operational modes of the SLQ-25 NIXIE and the different tactics used in its employment.

Advancement Handbook for OSC

General OS *Skill Area*	**Undersea Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Evaluate USW teams**
Knowledge you should have to perform this skill:	How to: • Evaluate a TMA team • Evaluate an active plotting team • Evaluate USW aircraft operations
References you should study to gain the knowledge you need to perform this skill:	• *Surface Ship Passive Localization and Target Motion Analysis,* NWP 3-21.51.3 • *Target Motion Analysis Techniques,* NWP 3-21.51.1
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on all aspects of TMA, from DRT plotting to the evaluator's plot.

Advancement Handbook for OSC

General OS *Skill Area*	**Undersea Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Recommend screening tactics**
Knowledge you should have to perform this skill:	• Screening tactics of high value units
References you should study to gain the knowledge you need to perform this skill:	• *Allied Antisubmarine Warfare Manual,* ATP 28; Ch. 9 • *Allied Maritime Tactical Instructions and Procedures,* ATP 1, Vol. 1; Ch. 3
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the different types of screens and when they should be used.

Advancement Handbook for OSC

General OS *Skill Area*	**Undersea Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Recommend tactics to the Scene of Action Commander (SAC)**
Knowledge you should have to perform this skill:	• Understanding of how to use SAC-related tactics
References you should study to gain the knowledge you need to perform this skill:	• *Allied Antisubmarine Warfare Manual,* ATP 28; Ch. 10 • *Allied Maritime Tactical Instructions and Procedures,* ATP 1, Vol. 1; Ch. 9
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on all aspects of the responsibilities of the Scene of Action Commander, Datum approach, search and attack procedures, etc.

Advancement Handbook for OSC

General OS *Skill Area*	**Surface Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Conduct attacks on localized targets**
Knowledge you should have to perform this skill:	How to: • Localize COI • Plan an engagement of COI • Engage COI
References you should study to gain the knowledge you need to perform this skill:	• *Allied Maritime Tactical Instructions and Procedures,* ATP 1, Vol. 1 • *Antiship Cruise Missile Employment Manual,* NWP 3-20.71 • *Surface Ship Passive Localization and Target Motion Analysis,* NWP 3-21.51.3
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the entire engagement process, from detecting to localization to attack.

Advancement Handbook for OSC

General OS *Skill Area*	**Surface Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Coordinate SUW and ASMD**
Knowledge you should have to perform this skill:	• How to coordinate SUW and ASMD
References you should study to gain the knowledge you need to perform this skill:	• *Allied Maritime Tactical Instructions and Procedures,* ATP 1, Vol. 1 • *Antiship Cruise Missile Employment Manual,* NWP 3-20.71
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the coordination required to conduct ASMD in a SUW environment.

Advancement Handbook for OSC

General OS *Skill Area*	**Surface Warfare**
A *skill* you are expected to perform from the General Skill Area above:	**Recommend tactics to the Surface Action Group (SAG) Commander**
Knowledge you should have to perform this skill:	• SAG commander responsibilities • SUW engagement tactics
References you should study to gain the knowledge you need to perform this skill:	• *Allied Maritime Tactical Instructions and Procedures,* ATP 1, Vol. 1 • *Surface Ship Antisurface Warfare Tactics,* NWP 3-20.3
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the responsibilities of a SAG commander and the various tactics available to conduct a SUW engagement.

Advancement Handbook for OSC

General OS *Skill Area*	**Electronic Systems Operations**
A *skill* you are expected to perform from the General Skill Area above:	**Evaluate combat systems readiness**
Knowledge you should have to perform this skill:	• Evaluate combat systems readiness to conduct various warfare functions
References you should study to gain the knowledge you need to perform this skill:	• Combat Systems Operational Sequencing System (CSOSS) manuals • NAVSEA Manuals covering Ship's Specific Radars • *Indicator Group AN/SPA-25G (General Information and Operations),* NAVSEA SE251-DG-MMO-010 • *JMCIS/NTCSA Users Guide Vol. I* • JMCIS/NTCSA-UG-001 • *Link-11/Tadil "A" Standard Operating Procedures/Operators Manual,* OPNAVINST C3120.39 • *Standard Operating Procedures for NATO Link-11,* AdatP 11 • *XXX Class Combat Systems Doctrine,* COMNAVSURFLANT/COMNAVSURFPAC INST C3516 SERIES
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on evaluating a ship's combat systems readiness to meet the challenges of various warfare scenarios.

Advancement Handbook for OSC

General OS *Skill Area*	**Electronic Systems Operations**
A *skill* you are expected to perform from the General Skill Area above:	**Coordinate platform requirements for battle group operations**
Knowledge you should have to perform this skill:	• How to coordinate platform requirements for battle group operations
References you should study to gain the knowledge you need to perform this skill:	• Combat Systems Operational Sequencing System manuals • NAVSEA Manuals covering Ship's Specific Radars • *Indicator Group AN/SPA-25G (General Information and Operations),* NAVSEA SE251-DG-MMO-010 • *JMCIS/NTCSA Users Guide Vol. I* • JMCIS/NTCSA-UG-001; Ch. 2 • *Link-11/Tadil "A" Standard Operating Procedures/Operators Manual,* OPNAVINST C3120.39 • *Standard Operating Procedures for NATO Link-11,* AdatP 11 • *XXX Class Combat Systems Doctrine,* COMNAVSURFLANT/COMNAVSURFPAC INST C3516 SERIES
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the requirements of setting up CIC to conduct battle group operations.

Appendix 1

References Used in This Advancement Handbook

Short Title	Long Title	Stocking Point
ACP 121	COMMUNICATION INSTRUCTIONS – GENERAL	Note 1
ACP 122	COMMUNICATION INSTRUCTIONS – SECURITY	Note 1
ACP 125	COMMUNICATION INSTRUCTIONS – RADIOTELEPHONE PROCEDURES	Note 1
ACP 125 U.S. SUPP-2	RADIOTELEPHONE PROCEDURES FOR CONDUCT OF ARTILLERY AND NAVAL GUNFIRE	Note 1
ACP 160	IFF/SIF OPERATIONAL PROCEDURES	Note 1
ADATP 11	ALLIED DATAS PROCESSING PUBLICATION 11 – STANDARD OPERATING PROCEDURES FOR NATO LINK 11	Note 1
APP 1	ALLIED MARITIME VOICE REPORTING PROCEDURES	Note 1
APP 4 VOLUME 1	ALLIED MARITIME STRUCTURED MESSAGES	Note 1
APP 4 VOLUME 2	ALLIED MARITIME FORMATED MESSAGES	Note 1
ATP 1 VOLUME 1	ALLIED MARITIME TACTICAL INSTRUCTIONS AND PROCEDURES	Note 1
ATP 1 VOLUME 2	ALLIED MARITIME TACTICAL SIGNALS AND MANEUVERING INSTRUCTIONS	Note 1
ATP 3	ANTISUBMARINE EVASIVE STEERING	Note 1
ATP 4	ALLIED NAVAL GUNFIRE SUPPORT	Note 1
ATP 8	DOCTRINE FOR AMPHIBIIOUS OPERATIONS	Note 1
ATP 10	SEARCH AND RESCUE	Note 1
ATP 16	REPLENISHMENT AT SEA	Note 1

ATP 28	ALLIED ANTISUBMARINE WARFARE MANUAL	Note 1
ATP 36	AMPHIBIOIUS OPERATIONS SHIP-TO-SHORE MOVEMENT	Note 1
ATP 37	SUPPORTING ARMS IN AMPHIBIOUS OPERATIONS	Note 1
CATP2V01U	PART 2- VOLUME I HYDROGRAPHIC PRODUCTS NAUTICAL CHARTS AND PUBLICATIONS	Note 2
CHART #1	SYMBOLS AND ABBREVIATIONS	Note 2
COMNAVSURFLANT/ COMNAVSURFPAC INST 3502.2	SURFACE FORCE TRAINING MANUAL	Note 13
COMNAVSURFLANT/ COMNAVSURFPAC INSTRUCTION C3516 SERIES COMINEWARCOMINST C3516.1	CLASS COMBAT SYSTEM DOCTRINE	Note 4
COMDTINST M16672.2	NAVIGATIONAL RULES, INTERNATIONAL AND INLAND	Note 2
CMS 1	COMMUNICATIONS SECURITY MATERIAL SYSTEM (CMS) POLICY AND INSTRUCTIONS	Note 15
CSOSS MANUALS	COMBAT SYSTEMS OPERATIONAL SEQUENCING SYSTEM MANUALS	Note 14
COMSURFWARDEVGRU TM SZ-5050-1-96	SURFACE SHIP UNDERSEA WARFARE ATTACK AND EVASION TACTICS MANUAL	Note 10
DUTTON'S	NAVIGATION AND PILOTING	Note 12
NV PUB NO. 9 V1	THE AMERICAN PRACTICAL NAVIGATOR: BOWDITCH	Note 2
NV PUB 217	MANEUVERING BOARD MANUAL	Note 2
JP 3-02	JOINT DOCTRINE FOR AMPHIBIOUS OPERATIONS	Note 3
JP 3-50	NATIONAL SEARCH AND RESCUE MANUAL VOLUME I: NATIONAL SEARCH AND RESCUE SYSTEM	Note 3
JP 3-50.1	NATIONAL SEARCH AND RESCUE MANUAL VOLUME II: PLANNING HANDBOOK	Note 3

JMCIS/NTCSA-TM-001	JMCIS/NTCS-A UNIFIED BUILD 2.2 TRAINING MANUAL	Note 11
JMCIS/NTCSA-UG-001 V1	JMCIS/NTCS-A UNIFIED BUILD USER'S GUIDE VOLUME I	Note 11
JMCIS/NTCSA-UG-001 V2	JMCIS/NTCS-A UNIFIED BUILD USER'S GUIDE VOLUME II	Note 11
NAVEDTRA 12043	BASIC MILITARY REQUIREMENTS	Note 1
NAVEDTRA 12968	LOOKOUT TRAINING HANDBOOK	Note 1
NAVEDTRA 172-18-00-84	NEETS MODULE 18, RADAR PRINCIPLES	Note 1
NAVELEX 0967-LP-374-7050	PROGRAMMED INSTRUCTION HANDBOOK FOR DECODER GROUP AN/UPA-59(V)2	Note 1
NAVELEX EE-230-FC-PIH-010	PROGRAMMED INSTRUCTION HANDBOOK FOR DECODER GROUP AN/UPA-59(V)2	Note 1
NAVSEA SE211-PO-MMA-010	RADAR SET SN/SPS-55 (VOLUME 1-GENERAL INFORMATION, SCHEDULED MAINTENANCE, CORRECTIVE MAINTENANCE, PARTS, INSTALLATION)	Note 1
NAVSEA SE211-PO-MMA-020	RADAR SET AN/SPS-55 (VOLUME 2-OPERATIONS)	Note 1
NAVSEA SE211-S1-MMA-010	RADAR SET AN/SPS-67(V)1 (GENERAL INFORMATION, OPERATIONS, THEORY, MAINTENANCE AND INSTALLATION)	Note 1
NAVSEA SE251-DG-MMO-010	INDICATOR GROUP AN/SPA-25G (GENERAL INFORMATION AND OPERATIONS)	Note 1
NTP 3	TELECOMMUNICATION USERS MANUAL	Note 7
NWP 1-01	NAVAL WARFARE PUBLICATION SYSTEM	Notes 1 & 5
NWP 1-03	JOINT REPORTING SYSTEM	Notes 1 & 5
NWP 1-03.1	OPERATIONAL REPORTS	Notes 1 & 5
NWP 1-03.19	JOINT REPORTING SYSTEM GENERAL PURPOSE MESSAGES	Notes 1 & 5
NWP 1-03.3	STATUS OF RESOURCED AND TRAINING SYSTEM (SORTS)	Notes 1 & 5

NWP 1-03.33	JOINT REPORTING SYSTEM (AIR DEFENSE/CONTROL MESSAGES)	Notes 1 & 5
NWP 1-03.34	JOINT REPORTING SYSTEM FLAG/OTC MESSAGES	Notes 1 & 5
NWP 1-03.35	JOINT REPORTING SYSTEM NAVAL SURFACE FIRE SUPPORT MESSAGES	Notes 1 & 5
NWP 1-03.37 PART 1 AND 2	JOINT REPORTING SYSTEM (COMMONLY USED MESSAGES)	Notes 1 & 5
NWP 1-03.36	JOINT REPORTING SYSTEM (OTHER JOINT MESSAGES)	Notes 1 & 5
NWP 1-03.40	MARITIME REPORTING SYSTEM	Notes 1 & 5
NWP 1-03.41	MARITIME REPORTING SYSTEM	Notes 1 & 5
NWP 3-01.01	ANTIAIR WARFARE	Notes 1 & 5
NWP 3-01.10	ANTIAIR WARFARE COMMANDERS MANUAL	Notes 1 & 5
NWP 3-02.1	SHIP-TO-SHORE MOVEMENT	Notes 1 & 5
NWP 3-09.11	SUPPORTING ARMS IN AMPHIBIOUS OPERATIONS	Notes 1 & 5
NWP 3-13.1.13	ELECTRONIC WARFARE COORDINATION	Notes 1 & 5
NWP 3-15.2	MINE COUNTERMEASURES OPERATIONS	Notes 1 & 5
NWP 3-15.21 (Rev.B)	SURFACE MINE COUNTERMEASURES OPERATIONS	Notes 1 & 5
NWP 3-15.41 (Rev. B)	MINE COUNTERMEASURES AND PLANNING PROCEDURES (GENERAL INSTRUCTIONS)	Notes 1 & 5
NWP 3-20.3	SURFACE SHIP ANTISURFACE WARFARE TACTICS	Notes 1 & 5
NWP 3-20.32	NAVAL SURFACE GUNNERY	Notes 1 & 5
NWP 3-20.71	ANTISHIP CRUISE MISSILE EMPLOYMENT MANUAL	Notes 1 & 5
NWP 3-21.51.1	TARGET MOTION ANALYSIS TECHNIQUES	Notes 1 & 5
NWP 3-21.51.3	SURFACE SHIP TARGET MOTION ANALYSIS (TMA) FOR PASSIVE SENSORS TACTICS	Notes 1 & 5
NWP 3-22.5-ASW TAC	(TACAID) FOR AIR ASW	Notes 1 & 5
NWP 3-22.5-SH60B	SH-60B/LAMPS MK III TACTICAL MANUAL	Notes 1 & 5

NWP 3-56	COMPOSIT WARFARE COMMANDERS MANUAL	Notes 1 & 5
NWP 5-01	NAVAL OPERATIONAL PLANNING	Notes 1 & 5
NWP 6-01	BASIC OPERATIONAL COMMUNICATIONS DOCTRINE	Notes 1 & 5
OPNAVINST 3100.6	SPECIAL INCIDENT REPORTING (OPREP-3, NAVY BLUE, AND UNIT SITREP) PROCEDURES	Note 8
OPNAVINST 3100.7	PREPARING, MAINTAINING, AND SUBMITTING THE SHIPS DECK LOG	Note 8
OPNAVINST 3120.32	STANDARD ORGANIZATION AND REGULATIONS OF THE U.S. NAVY	Note 8
OPNAVINST 5100.19 VOLUME 1	NAVY OCCUPATIONAL SAFETY AND HEALTH PROGRAM MANUAL FOR FORCES AFLOAT	Note 8
OPNAVINST 5100.19 VOLUME 2	NAVY OCCUPATIONAL SAFETY AND HEALTH PROGRAM MANUAL FOR FORCES AFLOAT	Note 8
OPNAVINST 5510.1	DEPART OF THE NAVY INFORMATION AND PERSONNEL SECURITY PROGRAM REGULATIONS	Note 8
OPNAVINST C3120.44	LINK-11/TADIL-A STANDARD OPERATING PROCEDURES/OPERATORS MANUAL	Note 9
SYSTEM OPERATIONAL MANUALS	XXX CLASS SYSTEM OPERATIONAL MANUALS (SOM)	Note 14

LEGEND:

Note 1 – To order, MILSTRIP to NAVICP PHILA or via INTERNET
http://www.nll.navsup.navy.mil

Note 2 – National Imagery and Mapping Agency (NIMA)

Note 3 – INTERNET http://www.dtic.mil/doctrine/jel/index.html

Note 4 –   Ltr Request to: Commander
                         Naval Surface Forces U.S. Atlantic Fleet
                         ATTN: Code N002A2
                         1430 Mitscher Ave
                         Norfolk VA 23551-2494

Note 5 –   NTIC Series B1 (CD-ROM) (See your command NWP Custodian)

Note 6 –   Refer to the instruction for the platform you are currently on. Exam
           questions will be of a general nature.

Note 7 –   Point-of-Contact: Downloaded from COMNAVCOMTELCOM's Bulletin
           Board Service (BBS); ALCOM 020/96 refers. If the document is classified,
           refer to note 1.

Note 8 –   INTERNET http://neds.nebt.daps.mil/

Note 9 –   Ltr request to: Chief of Naval Operations N62
                         2000 Navy Pentagon
                         Washington DC 20350

Note 10 –   NTIC Series A (CD-ROM) (See your NWP Custodian)

Note 11 –   Ltr request to: Space and Naval Warfare Systems Command
                         Information Management Systems Program
                         (PD 60)
                         Washington DC 20363-5100

Note 12 –   Commercial purchase

Note 13 –   Fleet Publications Library CD-ROM Letter Request to:
                         Commanding Officer
                         ATTN: CD-ROM Team Code N911
                         NCTAMS LANT
                         9625 Moffett Ave
                         Norfolk VA 23511-2784

Note 14 –   These pubs are furnished to ships that have CSOSS installed onboard.
           Those who do not have access to CSOSS should refer to the System
           Operational Manuals for their class of ship.

Note 15 –   Ltr Request to: Commanding Officer
                         Communications Security Material System
                         3801 Nebraska Ave. N.W.
                         Washington DC 20393-5252